DOCUMENT RESUME

ED 392 013 CS 012 336

AUTHOR	Hartman, Jeanette A.; Hartman, Douglas K.
TITLE	Creating a Classroom Culture That Promotes Inquiry-Oriented Discussions: Reading and Talking about Multiple Texts. Technical Report No. 621.
INSTITUTION	Center for the Study of Reading, Urbana, IL.
PUB DATE	Nov 95
NOTE	41p.
PUB TYPE	Guides - Classroom Use - Teaching Guides (For Teacher) (052) -- Viewpoints (Opinion/Position Papers, Essays, etc.) (120)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Classroom Communication; *Discussion (Teaching Technique); Elementary Secondary Education; *Inquiry; Instructional Innovation
IDENTIFIERS	*Information Focus; *Multiple Texts; Text Processing (Reading)

ABSTRACT

This report provides a rationale for making inquiry-oriented discussions a more integral part of classroom practice. It begins by identifying five features that make this type distinct from other types of discussion--focusing especially on the use of multiple texts. Then, the heart of the report explains the concepts and practices that are central to creating inquiry-oriented discussions. The report discusses these concepts and practices by depicting a framework of sorts for designing, implementing, and evaluating inquiry-oriented discussions. The framework focuses on nine elements key to making inquiry-oriented discussions more integral to classroom practice. Finally, the report provides suggestions for getting started with inquiry-oriented discussions, and addresses questions often raised by those who start these discussions in their classrooms. Contains 3 tables of data, 5 figures, 50 references, and 49 children's book references. (Author/SR)

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CREATING A CLASSROOM CULTURE THAT PROMOTES INQUIRY-ORIENTED DISCUSSIONS: READING AND TALKING ABOUT MULTIPLE TEXTS

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November 1995

Center for the Study of Reading

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Abstract

In this report, we provide a rationale for making inquiry-oriented discussions a more integral part of classroom practice. We begin by identifying five features that make this type distinct from other types of discussion. Then, in the heart of the report we explain the concepts and practices that are central to creating inquiry-oriented discussions. We discuss these concepts and practices by depicting a framework of sorts for designing, implementing, and evaluating inquiry-oriented discussions. The framework focuses on nine elements key to making inquiry-oriented discussions more integral to classroom practice. Finally, we provide suggestions for getting started with inquiry-oriented discussions, and address questions often raised by those who start these discussions in their classroom.

CREATING A CLASSROOM CULTURE THAT PROMOTES INQUIRY-ORIENTED DISCUSSIONS: READING AND TALKING ABOUT MULTIPLE TEXTS

In this report, we argue that inquiry-oriented discussions should be made a more integral part of classroom practice. We begin with background information and a brief rationale. Then, in the heart of the report we explain the concepts and practices that are central to creating inquiry-oriented discussions. Finally, we provide suggestions for getting started and address questions often raised by those who start these discussions in their classroom.

BACKGROUND

We begin our look at inquiry-oriented discussions by identifying five features that make it distinct from other types of discussion.

1. **The discussions are based on multiple texts.** Students may have 5, 10, 20, or more texts related to a topic in front of them while talking. The texts are sorted and resorted into clusters where ideas, illustrations, and images in one text are placed next to those in another text so that comparisons can be made, and texts are passed around so that others can see for themselves whether a discussion point is well justified or not.

2. **The discussions are focused on making connections among the multiple texts.** Whereas talk about a single text does occur, the discussion in general is about how pairs, trios, or larger clusters of texts relate to each other and to a central topic. Connections about how characters, events, ideas, themes, and motifs relate across texts are put forward, bandied about, refined, combined with new ideas, and discarded.

3. **The discussions extend over many days, weeks, and possibly months.** Because aspects of a topic are revisited on a number of occasions, the teacher and students develop a shared history of how each other's ideas have developed and changed over time. They often talk about what they used to think about a topic, and compare that to how their thinking has changed since reading and hearing more on the topic.

4. **Written records of the discussions are made.** These records are often made in learning logs or on large sheets of paper. Because the discussion of a topic can be spread out over long periods of time, these records serve as important reminders of what was discussed and what still remains to be said.

5. **The discussions are exploratory in nature.** The talk is riddled with false starts, lulls, ramblings, and overlapping speech, as well as clever words, profound insights, lucid thinking, and honest appraisals. Because students are part of a community where they see each other at their best and worst, they know the risks associated with trying to understand new ideas and therefore take great pains to support and celebrate fledgling attempts and major breakthroughs.

These features of inquiry-oriented discussions have many historical precedents. Early in this century, the project work of William Heard Kilpatrick (1918) engaged students and teachers in exploratory discussion about topics over extended periods of time. Almost two decades later, the experience and correlated curriculum advocated by the National Council of Teachers of English described ways in which students and teachers could explore topics from various perspectives across multiple texts (Hatfield, 1935; Weeks, 1936). Also in the 1930s, Teachers College Press published hundreds of booklets written

by teachers from across the United States who led extended conversations based on texts of all types (e.g., MacNeel, 1932). In the 1970s, George H. Henry (1974) published a book for teachers on how to lead multi-text discussions that help students learn to make more complex cross-textual connections. In this decade, a project sponsored by the National Reading Research Center examined a year-long classroom discussion in which the teacher and students carefully recorded aspects of their discussion and then used the records to reflect on their progress and plan for future discussions (Guthrie, McGough, & Bennett, 1994).

Given this century-long legacy, one would think that inquiry-oriented discussions should be a widespread practice in classroom life. But it is not (Wolf, 1988). Given the emphasis on inquiry learning by the whole-language movement, one would think that this type of discussion would have a visible presence in the professional literature. But it does not (Lipson, Valencia, Wixson, & Peters, 1993). In both cases, the evidence to date suggests that discussion in most American classrooms:

- focuses on a single text (Wolf, 1988),
- directs students to make connections within and beyond a text but not across texts (Akyol, 1994),
- occurs within a single day (or on several at he most) (O'Flahavan, Hartman, & Pearson, 1988),
- leaves little, if any, record of what has transpired (Wolf, 1988),
- is choreographed in such a way that few missteps are even attempted by students (O'Flahavan et al., 1988).

A handful of scholars have provided reasons why inquiry-oriented types of learning have not made their way into mainstream classroom practices (e.g., Brandt, 1993a; Shannon, 1990). A review of these reasons is beyond the scope of this report. In the pages that follow, our focus is on the conceptual and practical matters that have likely impeded the widespread use of inquiry-oriented discussions. We acknowledge that what happens in classrooms is constrained by political, cultural, and economic forces, but also realize that the quality of what occurs within the confines of these forces is largely a matter of how well conceptual and practical matters are executed in day-to-day planning and teaching. Therefore, our purpose in the remainder of the report is to take an updated look at some of these matters. In doing so, our thinking is informed by the research on inquiry learning (see Brandt, 1993b and Hartman, 1993, for reviews of this research), recent work on intertextuality (see Bloome & Egan-Robertson, 1993; Hartman, 1992, 1995, for reviews of this research), and our experiences using inquiry-oriented discussions in classrooms.

Our decision to take a new look at inquiry-oriented discussions is motivated by the continued call of educators and researchers to teach for understanding and to prepare students to use complex thinking within and beyond school (Drucker, 1994; Fowler, 1994; Sizer, 1984). The most recent of these calls, informed by the last two decades of research, highlights the fact that most students develop neither a very good understanding of what they are learning nor a disposition for a lifetime of learning (Gardner, 1991). Many students have fallen into a pattern of "the correct answer compromise" (Brandt, 1993b, p. 4), which promotes narrow and routine ways of thinking. In response, many reformers have called for a literacy of thoughtfulness and understanding (Brown, 1993; Gardner, 1991; Resnick, 1987, 1990; Sizer, 1984). This more robust kind of literary goes beyond basic skills and "includes enhanced abilities to think critically and creatively; to reason carefully; to inquire systematically into any important matter; to analyze, synthesize, and evaluate information and arguments; and to communicate effectively to a variety of audiences in a variety of forms" (Brown, 1993, p. xiii). Great thought and care are exercised by teachers and students to achieve this broader and deeper notion of literate understanding. And

achieving it is not easy. It requires sustained focus on a number of elements that help create a classroom culture in which inquiry-oriented discussions can flourish (Brandt, 1994; Cairney, 1990, 1992; Lehr, 1991; Pogrow, 1994).

CREATING A CLASSROOM CULTURE FOR INQUIRY-ORIENTED DISCUSSIONS

Central to creating a classroom environment in which inquiry-oriented discussions can take place are a number of concepts and practices. We discuss nine of these conceptual and practical elements below by drawing upon previous research, our own experiences, and those of others.

Selecting Topics

The first and probably most important element of inquiry-oriented discussions is selecting a topic. We define *topic* in a broad sense so that it refers to the focus of inquiry, whether that focus be on a problem, question, person, idea, historical period, theme, or event. Because some topics lend themselves better than others to inquiry-oriented discussions, there are a number of issues that are considered important when deciding on a topic (Dearden, 1983; Hartman & Eckerty, 1995; Katz & Chard, 1993; Perkins & Blythe, 1994). Five of these issues are particularly important:

- A *concept-driven* topic is one that is linked to an idea bigger than itself. The bigger idea is usually a generalization for a class of objects, people, animals, events, or other phenomena. Put another way, topics that are concept driven "rise above" a specific instance of something and focus on the broader systems, structures, and forms that give shape to other instances as well. Examples of these generalized, higher level concepts are: change, patterns, revolution, folk tales, unrequited love, or genre. Because these concepts are often uninteresting and inaccessible to students in their purely abstract form, they are tied to a more specific instance of the concept.

- A *generative* topic is one that lends itself well to growth and development across time. It provides continuity to the discussions. This continuous quality means that the topic is directional in nature, lending itself to "going somewhere," gathering momentum, and engaging students in the flow of discovery. A generative topic is one that is inclined to outgrow its initial boundaries in a way that leads to logical and coherent growth in understanding.

- A *complex* topic is multifaceted, and can be investigated from many perspectives and at many levels. It can be connected to other topics within and across subject areas, and it consists of many elaborate, interconnected parts that will require sustained thought to understand and untangle. This connected nature means that the topic has many potential layers and dimensions, giving it breadth and depth so that it can be revisited a number of times in various guises across the grades, with each visit evoking curiosity, intrigue, and wonder.

- A *useful* topic is one that is relevant and applicable to the lives of students. Whereas some topics have high momentary appeal, they might not be useful or relevant to students in the long run. Topics that inform both daily and future life are usually considered to be of high utility because students can draw upon them in later learning, whether it be in or out of school.

- And finally, an *accessible* topic is one that is within the "conceptual reach" of students. Topics that are accessible place inquiry "right there," allowing children to draw directly

upon personal experience and real phenomena to assist themselves in making sense of the topic under discussions. By starting discussions on that which is immediately accessible to children, teachers can extend children's knowledge above the level of immediate ideas to that which is not present and more abstract.

To make our discussion of each issue more concrete, we contrast two illustrative topics: "The Desert Ecosystem" and "Dinosaurs." In addition to making the issues more concrete, these two topics will also show how essential it is to think about the issues with a specific group of students and place in mind. We will locate these two illustrative topics in a second-grade suburban elementary classroom in Phoenix, Arizona. By applying the five issues to the topics in this context, our intent is to consider the potential they have for inquiry-oriented discussions.

- As a *concept-driven* topic, "The Desert Ecosystem" focuses on a specific instance (the desert) of a larger concept (ecosystems). Because this topic is highly concept driven, what is learned about the ecosystem in the desert can be used to study other ecosystems (like those in the rainforest, prairie, and ocean). In contrast, "Dinosaurs" by itself is a specific instance that is not linked to a larger concept. The topic could be made more concept driven by linking it to a higher-level idea like "extinction"--changing the focus to "Dinosaur Extinction"--which lends itself to the study of other extinct, or nearly extinct, animals.

- As a *generative* topic, "The Desert Ecosystem" can lead in may directions and "piggy-back" onto related topics like "The Rainforest Ecosystem," "The Prairie Ecosystem," and "The Ocean Ecosystem." "Dinosaurs," on the other hand, is much less generative because there are fewer substantive directions to move, thereby limiting its potential for studying future topics on other animals. But it could be made a more generative topic by relating it to a higher level concept such as "extinction" to form the topic of "Dinosaur Extinction," which would give direction to the study of dinosaurs and move it beyond its initial boundaries to the study of other extinct animals.

- As a *complex* topic, "The Desert Ecosystem" offers much potential for associating subject areas, delving into the interconnected parts of the ecosystem, and studying aspects of a desert system outside the city limits of Phoenix. Conversely, "Dinosaurs" may be partially rich with complexity within itself, but it is bounded from the potential that students need to connect and elaborate during inquiry to new frontiers of the topic. The topic can be made more complex by linking it to a higher level concept like "extinction," where the focus is on understanding the causes and dilemmas of animal survival and extinction, and, encouraging students to find solutions to problems.

- As a *useful* topic, "Desert Ecosystems" provides students with understandings that can be applied elsewhere on an ongoing basis, whether it be to the study of other desert regions around the globe in later grades, or the impact of Phoenix suburban growth on the desert ecosystem. In contrast, "Dinosaurs" informs students less well for their present and future lives because the opportunity to apply knowledge from this topic is more limited. To make this topic more useful, it should be raised to a higher concept level such as "The Extinction of Animals Past and Present," thereby providing understandings that could inform individual, classroom, or community political action.

- As an *accessible* topic, "The Desert Ecosystem" connects students to real, local resources. Students can investigate the desert, touch objects, talk with persons involved with desert preservation, and draw upon personal encounters with the desert. Through accessibility, students are able to extend the topic on their own. In contrast,

> "Dinosaurs" is much less accessible because its realness is much less tangible and present. Vicarious experiences often substitute for real access, but can not do justice to the favorability of "being there." Making the topic more accessible is best accomplished by beginning with a focus on dinosaurs that once live in the local area by shifting the topic to "Extinct Southwestern Dinosaurs."

In sum, these five issues are intended as guideposts, not givens, for selecting topics. That is, they provide direction for how to think about what will make one topic better than another for inquiry-oriented discussions. As a result, their application is not always uniform, with some topics simultaneously representing the best of all five issues, and others representing some of the issues at various points and degrees along the way. In the end, how best to use these guideposts is the most important decision of all. Whether they guide a teacher as she pre-plans a district-mandated topic, or inform students who are self-selecting topics to investigate, we have found that by thoughtfully using these issues to evaluate and re-shape topics, the substance and pleasure of conducting the inquiry-oriented discussions that follow are immeasurably enhanced.

Selecting Texts

Selecting from a wide variety of text types--so that students will have a rich set of resources from which to draw in their inquiry work--requires a broad definition of text. Typically, a text is understood to mean an experience or idea communicated in print, such as a textbook, chapter, or section of a passage. Although these types of text are the most common and familiar uses of this term, a text does not have to be confined to the boundaries of a printed page. A much broader definition of the word maintains that anything that communicates meaning is a text (de Beaugrande, 1980; Rowe, 1987; Siegel, 1984).

Thus, for the purposes of inquiry-oriented discussions, it is helpful to think of textual resources as ranging from *linguistic* to *semiotic* (Hartman & Hartman, 1993). Linguistic texts include written materials such as stories, chapters, articles, poems, and essays. Semiotic texts include film, video, drama, dance, music, photographs, paintings, gestures, oral styles, and many other types of signs. In a broadened sense, meaning can be constructed as students "read" from linguistic as well as semiotic textual resources.

There are two advantages in adopting this broadened conception of text types. First, it expands the number of supportive opportunities we can provide students for exploring a particular topic in a discussion. And second, it supports the more multimedia and multi-modal learning inclinations that students exhibit in their learning outside of formalized schooling. Taken together, both advantages place a high value on the full range of text types to which students can avail themselves during inquiry.

Identifying linguistic and semiotic textual resources on a particular topic is often a time-consuming and frustrating process, whether the teacher or students assume the responsibility for selecting texts. We have found a number of resources helpful in streamlining the search process. (See Hartman & Hartman, 1993, 1994 for annotated lists of the books, periodicals, and software that are readily available for locating linguistic and semiotic texts.) We have also found the expertise of librarians and colleagues to be invaluable contacts for locating additional texts. Finally, an increasingly important means of locating texts is through on-line services (e.g., America Online, CompuServe, and Prodigy), Internet discussion lists (e.g., KIDLIT-L and KIDSPHERE), and Internet Gopher and World Wide Web servers (e.g., Scholastic Internet Services and Center).

Arranging Texts

Thinking about how to arrange the texts selected is another element of preparing for inquiry-oriented discussions. The goal is to arrange texts in such a way that they contribute to a rich set of exploratory

and integrative discussion experiences for students. Although there are no hard and fast rules for creating sets of texts that facilitate inquiry discussions, we have identified a number of useful ways to think about the underlying relationships among texts (Hartman & Hartman, 1994). These relationships fall into five categories:

- *Complementary* texts represent enhancing and supportive aspects of a topic, and provide students with varied and repeated opportunities to see the multi-faceted nature of that topic (see Figure 1). For example, the topic of "Number Sense" can be explored through a set of complementary texts that give a feel for large numbers: Wanda G'ag's story *Millions of Cats* (1963), an information book titled *How Much is a Million?* (Schwartz, 1985), an information article of the same title (Goins, 1975), an historical account of how large numbers developed in *The Story of Numbers* (Lauber, 1961), and a book filled with one million dots (Hertzberg, 1970) provide students with many opportunities to construct, reconstruct, and synthesize information from multiple sources.

- *Conflicting* texts represent alternative, problematic, and disruptive perspectives on a topic (see Figure 2). They bring competing viewpoints to center stage for students, rather than relegating them to the wings. For example, the topic "What Really Happened in History?" can be explored through conflicting accounts of the death of General James Wolfe at the battle of Quebec in September 1759 during the French and Indian War, including the event as mentioned in a social studies textbook (Hirsh, 1988), as described in a children's periodical (Collins, 1991), as painted by West (1770), as discussed in trade books (Henty, 1961; Marrin, 1987; Ochoa, 1990), and as retold by a historian (Schama, 1991).

- A *controlling* text is used as a frame for the reading of other texts. Such an arrangement provides students with the opportunity to use one text as a strategic device or authoritative expression for opening up understandings of another (see Figure 3). For example, the topic of "Needing to Belong" in MacLachlan's (1985) book *Sarah, Plain and Tall* can be used as the controlling lens through which to read such subsequent texts as David McCord's "This is My Rock" (Cole, 1984), Langston Hughes' "Dreams" (Prelutsky, 1983), "Sumer Is Icumen In" (Caldwell & Kendrick, 1984), and *Maniac Magee* (Spinelli, 1990).

- *Synoptic* texts highlight the versions and variants of a single story or event. Such an arrangement provides students with the opportunity to see how a story is refracted through various social, cultural, structural, medium, and historical lenses (see Figure 4). For example, the topic of "Diversity Around the World" can be explored through a set of synoptic texts that focus on how fairy tales like *Cinderella* are rendered across various cultures. Students can read the linguistic versions of *Yeh-shen* (Ai-ling, 1982) (China), *Princess Furball* (Huck, 1989) (Germany), *Vasilisa the Beautiful* (Whitney, 1970) (Russia), *Moss Gown* (Hooks, 1987) (Southern U.S.), and *Mufaro's Beautiful Daughter* (Steptoe, 1987) (Africa), as well as the semiotic texts of Rogers and Hammerstein's (1964) musical and dramatic production of the story, *The Berlin Comic Opera's* (Bey & Gawlick, 1986) dance interpretation of the fairy tale, and the illustrations in the versions mentioned previously.

- *Dialogic* texts present an ongoing interchange or "dialogue" on a topic. Such an arrangement provides students with a textual "conversation" where characters/people, themes, and events appear and reappear across many texts (see Figure 5). Maurice Sendak's trilogy--*Where the Wild Things Are* (1963), *In the Night Kitchen* (1970), and

Outside Over There (1981)-- provides an example where interactions around the topic of "Dealing with Hardship" are exchanged and reworked across the texts.

Regardless of how texts of various types are arranged, the overriding concern should be for how well a cluster of texts is likely to promote student inquiry learning. As one might expect, some textual arrangements will lend themselves better than others to inquiry learning. The key is to persist and explore the many possible ways texts complement and challenge the topic to be explored during discussion.

Designing Activities

There are a variety of activities that enhance students' efforts to explore and relate multiple texts in inquiry-oriented discussions. We find it helpful to think of these activities as ranging from *closed-ended* to *open-ended* (Hartman & Hartman, 1993, 1994). Closed-ended activities are those that specifically define the direction of inquiry, thereby focusing the reading across texts on a particular aspect or purpose. For the topic "Exaggeration and Reality in Media" where versions of *Jack in the Beanstalk* are read (e.g., Cauley, 1983; De Regniers, 1987; Gruenberg, 1933; Harris, 1807/1974; Kellog, 1991), a closed-ended activity limits students to a prescribed set of texts that have been selected in advance by the teacher. The teacher then poses an equally closed-ended question such as, "Why did Jack go up the beanstalk for the third time?" *before* students make their way through the three versions of the story. By preselecting the texts to be read and posing such a question beforehand, the teacher limits the range of discussion to Jack's motives for his third ascent.

In contrast, open-ended activities define less specifically, at first, the initial texts to be read and the direction in which discussion is to move. The intent with these activities is for students to engage in inquiry on their own terms, with minimal direction from the teacher. As students progress in their inquiry, however, the teacher may want to help them decide on central concepts to be studied. After students have explored these central concepts, they can then return to a broadened focus that branches out to other related ideas. An open-ended activity that uses the same *Jack in the Beanstalk* versions would direct students to explore the similarities and differences among the texts for their own purposes, and then to read beyond them for additional texts of their own choosing that they think relate to their emerging understandings and responses. For example, students might discover and make their way through related texts about: how other giants have been depicted in fairy tales (Adams & Atchinson, 1926; Naden, 1979), what other story characters have done when they encountered beanstalks (Briggs, 1970), and how real bean plants grow and function in man-made and natural environments (Black & Huxley, 1985; *Children's Britannica*, 1988). By encouraging students to read beyond the starter texts and to engage in learning for their own purposes, a much broader range of potential connections is possible than those conceived of in a lesson plan, teacher's manual, or curriculum guide.

On a cautionary note, when students first begin to use texts in more open-ended activities, often they are inclined to look for the "right" links, that is, those sanctioned by the teacher. Therefore, students should be encouraged to look for their own links between texts, make judgements about what is relevant to connect, and synthesize information in ways that make sense to them and others When students are given more responsibility in the inquiry process, they will see learning as more of an open, ongoing construction of meanings across texts. In turn, they will be captivated by a much larger vision of discussion.

Developing Questions

Questions have long been used to develop and assess students' understanding of a topic. However, research on the types of questions used most often in elementary classrooms indicates that whether teachers are developing or assessing comprehension, their questions largely direct students to make

connections *within* and *beyond* a single text, but not *across* texts (O'Flahavan et al., 1988). It is these cross-textual questions, which are absent in most classroom discussion, that give inquiry-oriented discussions their texture, richness, and direction. To address the absence of these question types, Akyol (1994) and Hartman (1991) developed a scheme that divides questions into three types:

- *Intratextual* questions prompt students to recall or connect information *within* a single text. These questions ask students to produce answers that can be found explicitly in the text or inferred by connecting information from several sentences or paragraphs within a text.

- *Intertextual* questions prompt students to connect information from *across* two or more texts. These questions ask students to connect information from several texts that have been read for the discussion, or for purposes outside the discussion.

- *Extratextual* questions prompt students to connect ideas from *beyond* the text to information in the text. These questions direct students to connect their background knowledge with information in the text, or to recall information solely from their background knowledge (See Table 1).

Should these question types be used in any particular progression? We have observed a consistent pattern in the progression we have used with these three question types: start with intratextual questions, move on to extratextual questions (if necessary), and then expand to intertextual questions. This has been the case when students are not familiar with the process of inquiry-oriented discussions, are younger developmentally, or are bogged down momentarily in how to connect texts. For example:

- When students are less familiar with the process of inquiring, discussing, and connecting across texts, it may be helpful to start with intratextual questions, proceed to extratextual questions, and then expand to intertextual questions. On the other hand, when students are more familiar with these processes they may be able to engage immediately in intertextual questions, with intra- and extratextual questions embellishing the discussion over time.

- When students are developmentally younger they may need to start with intra-and extratextual questions before proceeding to intertextual questions. In contrast, older students may be able to engage sooner with intertextual questions.

- And when students are temporarily stuck on how to connect texts to better understand a topic, their thinking can be roused by asking intra- and extratextual questions that spur them to identify salient information from each text and their personal experience, followed by intertextual questions that direct them to relate information across the texts to a more thoughtful understanding of the topic.

Overall, an intimate understanding of what students know and can do should guide which question types are used and when.

Whereas all three question types have a place in inquiry-oriented discussions, *intertextual* questions should have a special prominence because the focus is on connecting information from multiple texts to develop a thoughtful understanding of the topic. Conceiving and posing intertextual questions requires a way of thinking that has not received widespread attention to date. By piecing together the work of others, we have developed a simple scheme for composing intertextual questions of various types (Bartholomae & Petrosky, 1987; Hatfield, 1935; Henry, 1974; Moss, 1984):

- *Correlation* questions prompt students to contrast information across texts to understand how aspects in each of the texts are similar or different. The focus is on contrasting ideas, facts, or textual elements (e.g., characters, settings, events, problems) by doing analytic comparisons. An example of a correlation question is: "What are the similarities and differences among the creation myths we have been reading?"

- *Fusion* questions prompt students to combine information across texts in terms of an external element to achieve a more complete understanding. The focus is on how this external element--whether it be the topic or another text--can serve as a frame or lens for opening up new perspectives on the topic. An example of a fusion question is: "Is there something in one text that helps you better understand the topic as presented in the other text(s)?"

- *Integration* questions prompt students to join information across texts in ways that create new ideas. The focus is on generating new insights about the topic that are not presented in any of the texts, but can be constructed by imaginatively and rigorously melding aspects together. An example of an integration question is: "Having read these texts, what new thought or insight do you come to that is not in any of the texts?"

Whether these types of questions are posed before students read a set of texts (as in a more closed-ended activity) or a teacher poses an impromptu question to facilitate a direction of inquiry students are already pursuing (as in a more open-ended activity), the emphasis should be on directing students to correlate, fuse, and integrate information from multiple sources in their discussions.

Managing Texts

As a practical matter, we have found two factors that greatly facilitate the management of texts during inquiry-oriented discussions. First, have plenty of space to lay texts out. A large table or an open section of the classroom floor often works best. As a rule of thumb, the texts should be positioned so that they are visible within one eye-span and can be seen, pointed at, and moved about during the discussion with relative ease. Students, whether the whole class or small working group, then sit in a circle around the texts.

Second, have students manually sort and connect texts during the discussion. There are a number of ways for students to manipulate texts. We recommend that two practices be a part of whichever way is used. One is that students should be encouraged to physically sort texts into piles, clusters, pairs, or columns and rows *as they talk* (Short, 1992a). Making these concrete manipulations of textual material helps the students make connections among sources visible, experiential, social, and conceptually relevant. The other practice is that the student who has control of the discussion floor at a given moment should move the texts about, or direct a person of his or her choosing to move them about. By placing the control of textual manipulation directly in the hands of the student speaking, exact movement and placement of texts occurs with a minimum of delay, misunderstanding, and distraction. Consequently, discussion moves along at a lively pace. For younger students, the teacher may need to facilitate students' handling of these materials.

Managing Talk

While there are many items to consider when leading a discussion, three items are distinct to managing talk during inquiry-oriented discussions. One is the recognition that there are two overlapping phases to this type of discussion. The first phase is an *exploratory* phase, where many ideas are mentioned but not explored in depth. Rather than any type of sustained dialogue on the topic, the talk zig-zags, and shifts, like a series of non-sequitur monologues. This may appear to be unfocused, random talk, but it

is an important brainstorming time where initial responses, half-baked ideas, and false starts are the norm and are put forward as possible candidates for later focused discussion. Because this is an important idea incubation period, it is critical that the teacher not jump in and smooth over the disjunctured talk by pointing out logical connections or prompting students to focus on one idea at a time so that it can be polished to a more refined state. Resisting the temptation to direct this "ideating" or "mucking around" time in the name of having a more "productive" discussion squelches any promise of more focused discussion later that reflects inventive, thoughtful understandings (Short, 1992b; Smith, Goodman, & Meredith, 1970). In sum, this exploratory phase is for students to explore widely and make public their rough-draft ideas, giving them a sense of possibilities.

The second phase involves the much more *focused* task of shaping, reworking, and refining ideas. It is the talk of this more focused discussion that creates moments of powerful insight and late-afternoon "eurekas." The shift from exploratory to focused discussion evolves slowly, and may take some prompting on the teacher's part to move things along at critical junctures. As students begin to shift through the ideas they initially proposed, one or more ideas will begin to emerge as worth exploring in more depth. Discussion shifts to a more focused development of those ideas, and the contributions of students begin to build directly upon those that preceded.

Another distinct item of inquiry-oriented discussions is the record that is made of the daily discussion. In addition to the sketching suggestions presented in the previous section on managing texts, we add here that the daily discussion sketches should be recorded in a sequence that gives a sense of the flow to ideas explored, texts used and reused, and connected. We have found it useful to use a role of butcher paper so that each new panel in the ongoing discussion can be placed next to the previous discussion's record. Each discussion panel is dated, and it can be read as a kind of concept story wall of the discussion that has evolved to date. The practice of constructing a daily record of discussion does much to build continuity and coherence into the talk of the multi-day discussions.

A final distinction of inquiry-oriented discussions is the establishment of routines that serve to start up and close down daily installments of the longer discussion. A helpful starting routine we have used is to ask one or two students to begin the discussion by reviewing where the group has come from in preceding discussion sessions. Students usually do this brief review while referring to the sequence of daily discussion panels they have sketched on the butcher paper. The documents, or artifacts, they produced also can be reviewed. A useful closing routine is for students to spend a few minutes talking about what they have accomplished that day and what they want to do the next time they sit down to talk about their topic (Short, 1992a). These next steps, as well as when the next discussion time will occur, are usually written on the butcher paper discussion panel for that day so the panel can be referred to when the students congregate again to revisit the topic. This also alerts those students who may need to do outside preparation as to what will need to be done and by when. Whether these or other routines are developed, they should have a retrospective (i.e., reflective synthesis) and prospective (i.e., predictive planning) element that serves to direct the stream of discussions into a near-seamless flow of talk. Otherwise, the rich potential of extended, in-depth inquiry-oriented discussions may not be realized.

Documenting Learning

For evaluation purposes, it is important to consider the products, artifacts, or outcomes students construct to represent their understanding of the topic across the texts. Our emphasis has been upon encouraging students to use a variety of forms to represent their new ideas, primarily because classrooms that narrowly define how students can demonstrate their academic ability produce many undesirable effects on learning and socialization (see Rosenholtz & Simpson, 1984). On the other hand, classrooms that define academic ability in broader terms are more accommodating to students' various learning and interactional styles.

Therefore, our discussion about outcomes includes various ways students can represent their evolving understandings of a topic. The many modes by which outcomes can be expressed range from *uni-medium* to *multi-media* (Hartman & Hartman, 1993, 1994). Uni-medium outcomes usually are expressed in isolation or minimally used together, such as talking, singing, writing, or drawing connections that students make across textual resources: a student might informally talk with others about the texts they have read; write a story, poem, or song; draw, sketch, or paint pictures or make semantic maps.

Moving toward more multi-media modes of expression involves combining some of these activities, such as writing a report and presenting it to the class, or sketching connections discussed during a small-group conference session. Even more involved expression modes encourage students to symbolize their thoughts by enacting or reconstructing connections across texts. For example, while discussing the topic "Acting Out the Written Word," students can enact a play they have written (complete with props, setting, and music) after reading across a linguistic textual version of *Peter and the Wolf* (e.g., Chappell, 1981), a version that includes excerpts of the musical score along with the linguistic text (Voigt, 1980), as well as semiotic textual versions: a traditional narrated classical recording (Prokofiev, 1984), a more contemporary jazz rendition (Van Ronk, 1990), and a full-length animated film (Disney, 1982).

In addition, students can reconstruct textual connections through the use of projects (Hartman, J.A. 1991; Katz & Chard, 1989). Projects are "indepth investigations of interest to children that can last from a few days to several months" (Hartman & Eckerty, 1995, p. 143). For example, after reading across such books as *One Day in the Tropical Rain Forest* (George, 1990), *Rain Forest Secrets* (Dorros, 1990), *The Great Kapok Tree* (Cherry, 1990), *Where the Forest Meets the Sea* (Baker, 1987), as well as articles such as *Tropical Rain Forests: Life at the Maximum* (Batten, 1991), *What's the Difference Between a Rain Forest and Other Forests?* (Fairley, 1990), and *The Nature of the Rainforest* (Crabtree, 1990), students can construct in one section of the classroom a model of a rain forest that synthesizes information from across the source texts.

It is important to note here that multi-media approaches not only accommodate an expanded role of the student, but require an accompanying reconceptualization of classroom space and the teacher's role in the classroom. The classroom becomes more than a place where students learn at desks and tables and post their work on the walls. One must envision the classroom as part museum, publishing house, think tank, writers' workshop, artists' studio, theater, drafting room, computer lab, library, bookstore, gallery, recording studio, and more. As a result, the teacher's role becomes that of curator, impresario, editor, futurist, therapist, director, producer, media resource specialist, salesperson, engineer, and so on.

Whether uni-medium or multi-media ways of documenting are used, the consistent focus should be on recording the connections being discussed to construct a thoughtful understanding of the topic. One way to do this is by having a big piece of butcher paper under the books so that colored markers can be used to sketch out cross-textual connections or groupings being discussed. The result is a public record of the discussions for all to see. Another way to graphically depict connections is for each student to keep a learning log in hand to sketch different configurations of the textual layout that are discussed. The result is a personal record of the discussions for later use. Whatever method is used, leaving a paper trail of what transpired during the discussion is important so that it can be referred to at a later time, whether for writing a report, preparing an oral presentation, or knowing where to pick up the discussion from where it left off the day or week before. For helpful examples of how to assist students in graphically depicting similarities and differences among texts, see Worthy and Bloodgood's (1993) descriptions of the public and personal diagrams students constructed while discussing versions and variants of the Cinderella story.

Evaluating Learning

Evaluation of what students learn should be based on the documentary evidence that is collected throughout the inquiry-oriented discussions. Our view of how to evaluate this evidence is informed by the work of many scholars (e.g., Perkins & Blythe, 1994; Valencia, McGinley, & Pearson, 1990). In general, we suggest that two types of evaluation be used. One is an ongoing type that will inform students' learning and the teacher's instruction (formative evaluation), while the other is a terminal type that serves accountability needs (summative evaluation). Both ongoing and terminal evaluation require criteria for judging teaching and learning in the discussions. Two types of criteria are particularly important for evaluating the ongoing and terminal evidence that is collected during inquiry-oriented discussions.

Process criteria focus on how well the discussion is proceeding, and how various elements promote or impede that progression. Because the nine elements discussed in this section concentrate on things that promote or impede inquiry-oriented discussions, we use them as process criteria. Located in the first column of Table 2 is a list of the elements, followed by questions that focus on the important evaluative aspects of each element. In the second column is a space to identify the type of evidence that is to be used in answering each question. The third column provides a rating scale from "not well" to "very well" (1 through 5) to be used in evaluating the degree to which the criteria reflected in the question are visible in the documentary evidence. In the final column is a space to indicate any adjustments that need to be made, or steps to be taken, to improve the discussion as it continues.

Content criteria focus on the substance of the discussions, emphasizing the quality of the material that results from the process. Located in Table 3 are four points along the continuum that we have used to evaluate the complexity of thought and understanding reflected in the content of documentary evidence. The table also provides columns next to the criteria to indicate the type of evidence to which the criterion is applied, the rating arrived at when applying the criterion to the evidence, and any adjustments or next steps that need to be taken in future discussions.

Both sets of criteria can be used by the teacher and students for evaluating the discussions. We have found that setting aside time regularly to reflect on all or part of these criteria contributes greatly to the ongoing effectiveness of the discussions (formative evaluation). In addition, to bring closure to many weeks of discussion, a final debriefing should be held (summative evaluation).

In sum, the nine elements highlighted in this section focus on the salient features of developing inquiry-oriented discussions in the classroom. The elements are intended as a means, not an end; they are conceptual and practical tools for creating a classroom culture where inquiry-oriented discussions thrive. Like all tools, they are to be used to construct something else. There are, of course, other elemental tools that matter substantively to the functioning of any discussion, such as teacher-student rapport, classroom management skills, and participatory structures. The other chapters in this book speak to many of these other elements.

GETTING STARTED

In the final section of this report we provide suggestions for beginning inquiry-oriented discussions, and then address four questions that often surface as teachers initiate the discussions.

Start-Up Suggestions

The suggestions that follow are based on the same underlying strategy: start small, and over time, expand the conversations.

- Start with a teacher-initiated topic, or present a few topics to students from which they can choose. Once the teacher and students have a better feel for how various topics work, assist students in assuming more responsibility for topic selection.

- Begin the initial discussions with starter texts that the teacher has selected, and then encourage students to seek out additional texts. Emphasize to students that the texts selected by the teacher are only to get things started, and that the students are to seek out other texts that will further the discussion of the topic.

- Use linguistic (written) texts to start the first few discussions, but then expand to more semiotic texts over time. Repeatedly remind students that they can 'read' and learn from many different types of textual resources, and that they should explore beyond conventional print sources. The teacher may need to provide class time for students to locate pictorial, video, and audio textual resources before they begin to fully recognize the large number of sources available to them.

- Conduct the initial discussions with the teacher leading out in front of the students. Over time, help students move out in front with the teacher leading from behind. The shift should be from a directing to facilitating role for the teacher.

- Model the process of connecting texts as a way to make sense of the topic. Reading and seriously talking about a large number of texts may be a new school experience for many students, so students will need the teacher to coach them in how to try out ideas, change their minds, or disagree with themselves.

- Offer examples of how to depict graphically connections among texts and ideas. This too is likely to be new territory for most students, so they will need samples to draw upon. A good place to start is with sketches the teacher has made when investigating a topic on her own.

- Keep a regular focus on the concept related to the topic. Often there is a tendency to talk about the particular of the topic (desert), but not its related concept (ecosystems). Discussion should direct students to the higher-level concept as they inquire about the particular case.

Common Questions

Once inquiry-oriented discussions are underway, several questions commonly arise. Each of these questions grows out of the uncertainties that accompany an exploratory learning approach like inquiry-oriented discussions. We respond below to four of these commonly asked questions.

- *How do I explain to my students exactly what it is we are trying to do?* A simple explanation should be sufficient to help students picture what inquiry-oriented discussions can be like. One way you might say this is, "We will be learning about (topic). We will work with many different pieces of information, and talk with people who know about our topic. As we learn about (topic), you need to think about how each piece of information relates to another piece of information. So, you will compare how one piece of information is the same as, or different from, another piece of information. Or, how a piece of information fits, or does not fit, with another piece of information. As you work with all of this information, and talk with your friends, what you know about this topic will change. That's a good sign. We want to see how our thinking about (topic) grows with each new text we read and talk about."

- *What if students do not make connections across texts, or their discussions are not inquiry-oriented?* The absence of cross-textual connections or inquiry-oriented discussions could be due to: (a) the topic not meeting well the criteria we discussed earlier; (b) the texts not being varied enough; (c) students needing more prompts from the teacher; or (d) students not having enough time to work with the information and develop ideas. Once the source(s) of the problem has been identified, reread the relevant section of this chapter for suggestions on how to reanimate the discussions.

- *What is the teacher's main goal when developing inquiry-oriented discussions that use multiple texts?* The main goal of inquiry-oriented discussions is for students to develop a thoughtful understanding of the topic. This understanding is developed by making connections within, across, and beyond texts in the course of group discussion. A related goal is for students to learn how to engage in complex thinking that requires them to analyze, evaluate, and synthesize information from many textual sources. Over time, students will be more able to think in this way.

- *Where do inquiry-oriented discussions that use multiple texts fit into the curriculum?* Exactly where these discussions fit into the curriculum depends on the teacher's and school's goals. If the goals include thinking critically, then the discussions ought to be central to classroom activity (i.e., scheduled every day or week). If the goals do not include this type of thinking, then the discussions will probably have to play a less central role (i.e., a few times a month).

CONCLUSION

In this report, we have presented a case for making inquiry-oriented discussions a more integral part of classroom practice. The defining features of this discussion link it to a larger historical movement to promote a literacy of thoughtfulness and understanding. The goal of this new literacy is to develop students who can locate, sift through, analyze, interpret, evaluate, and communicate information from multiple texts to different audiences for different purposes. The means for achieving this goal, we argue, lie in how well certain fundamental concepts and practices are executed in the classroom. The nine elements discussed in the heart of this report represent those fundamental concepts and practices, and depict a framework of sorts for designing, implementing, and evaluating inquiry-oriented discussions. As a means to an end, the framework is intended to be descriptive rather than prescriptive, and the accompanying examples are intended to be illustrative rather than exhaustive. By availing ourselves to the realities that the framework and examples make possible, inquiry-oriented discussions provide a means that is consistent with the ends of this new literacy.

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Huck, C. (1989). *Princess furball*. New York: Greenwillow.

Rogers, R., & Hammerstein, O. (1964). *Cinderella*. New York: CBS/Fox Video.

Steptoe, J. (1987). *Mufaro's beautiful daughter*. New York: Lothrop, Lee & Shepard.

Whitney, T. (1970). *Vasilisa the beautiful*. New York: Macmillan.

"What Really Happened in History?" (Example: General James Wolfe's Death at Quebec)

Collins, J. R. (1991, April). The capture of Quebec. *Cobblestone*, 38-43.

Henty, G. A. (1961). *With Wolfe in Canada: Winning of a continent*. New York: Walker.

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Adams, K., & Atchinson, F. E. (1926). *A book of giant stories*. New York: Dodd, Mead.

Black, D., & Huxley, A. (1985). *The world of science: Plants*. New York: Facts On File Publications.

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Caldwell, M., & Kendrick, W. (Eds.). (1984). *The treasury of English poetry*. New York: Doubleday.

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Prelutsky, J. (Ed.). (1983). *The Random House book of poetry for children*. New York: Random House.

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Ga'g, W. (1963). *Millions of cats*. New York: Coward, McCann & Geoghegan.

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Sendak, M. (1963). *Where the wild things are*. New York: Harper Trophy.

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Table 1

Question Types for Inquiry-Oriented Discussion: Intratextual, Intertextual, and Extratextual

Question Type	Purpose	Focus	Example
Intratextual	To recognize, recall, or connect information *within* a single text.	A question that prompts students to answer by: • recognizing or recalling information that is explicitly stated within a single text, or • connecting information from several sentences or paragraphs within a single text.	"What is the name of the main character?" "How do the author's views of the desert ecosystem change from the beginning, to the middle, to the end of the book?"
Intertextual	To connect information *across* two or more texts.	A question that prompts students to answer by: • connecting information across several texts that are part of the discussion, or • connecting information across several texts that are a part of and outside the discussion.	"How are the problems in all three stories alike/different?" "How have the texts you read in science last year on the spotted owl helped you better understand this essay on dinosaur extinction?"
Extratextual	To connect ideas from *beyond* the text(s) to information in the text(s).	A question that prompts students to answer by: • connecting information from the text(s) and information from background knowledge, or • recalling or constructing information from background knowledge.	"What do you know now about how shoes are made compared to what you used to know?" "What do you know about how rainforests work?"

Table 2

Process Criteria to be Used When Evaluating Inquiry-Oriented Discussions

Process Criteria	Documentary Evidence	Rating[a]	Adjustments/ Next Steps
Selecting Topics			
1. How well does the topic lend itself to the investigative nature of inquiry-oriented discussion?		1 2 3 4 5	
2. How well does the topic fit with the issues of being concept-driven, generative, complex, useful, and accessible?		1 2 3 4 5	
Selecting Texts			
3. How well do the texts provide a rich set of resources from which to draw ideas and information?		1 2 3 4 5	
4. How well do the texts represent a range of text types from linguistic to semiotic?		1 2 3 4 5	
Arranging Texts			
5. How well conceived are the underlying relationships among texts?		1 2 3 4 5	
6. How well are the texts arranged to facilitate inquiry discussion?		1 2 3 4 5	
Designing Activities			
7. How well do the close-ended activities promote inquiry in the discussions?		1 2 3 4 5	
8. How well do the open-ended activities promote inquiry in the discussions?		1 2 3 4 5	

Table 2 (Continued)

Process Criteria	Documentary Evidence	Rating[a]	Adjustments/ Next Steps
Developing Questions			
9. How well do the planned questions prompt the connecting of information within, across and beyond the texts?		1 2 3 4 5	
10. How well do the follow-up and impromptu questions prompt thoughtfulness about the relationships within, across, and beyond the texts?		1 2 3 4 5	
Managing Texts			
11. How well is the space made available for sorting texts used?		1 2 3 4 5	
12. How well is the manipulation of texts managed during discussions?		1 2 3 4 5	
Managing Talk			
13. How well do the initial discussions allow brainstorming and playful exploration of ideas?		1 2 3 4 5	
14. How well do later discussions become more focused on investigating specific ideas?		1 2 3 4 5	
Documenting Learning			
15. How well are discussions documented on large sheets of paper or in learning logs?		1 2 3 4 5	
16. How well do the artifacts used to document learning reflect a balance and variety of evidence types?		1 2 3 4 5	
Evaluating Learning			
17. How well do the ongoing and terminal types of evaluation help understand what is learned?		1 2 3 4 5	
18. How well have the criteria been explained and used during the discussions?		1 2 3 4 5	
19. How well has the time set aside been used to reflect on the inquiry process?		1 2 3 4 5	

[a]The numerals in the rating scale are intended to indicate qualitative gradients of the criteria in the question. Additional characteristics or hallmarks can be developed for each numerical rating. For our purposes, a general scale is sufficient for initial evaluation purposes:

1 = Not Well 2 = Fairly Well 3 = Moderately Well 4 = Well 5 = Very Well

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Table 3

Content Criteria to be Used When Evaluating Inquiry-Oriented Discussions

Content Criteria	Documentary Evidence	Rating[a]	Adjustments/ Next Steps
Recognition 1. How well does the student recognize connections that have been used or created in the discussions?		1 2 3 4 5	
Use 2. How well does the student use connections that have been used or created in the discussions?		1 2 3 4 5	
Creation 3. How well does the student create original connections to use in the discussions?		1 2 3 4 5	
Application 4. How well does the student apply connections to the development of novel ideas, original works, or prototypical solutions?			

[a]The numerals in the rating scale are intended to indicate qualitative gradients of the criteria in the statement. Additional characteristics or hallmarks can be developed for each numerical rating. For our purposes, a general scale is sufficient for initial evaluation purposes:

1 = Not Well 2 = Fairly Well 3 = Moderately Well 4 = Well 5 = Very Well

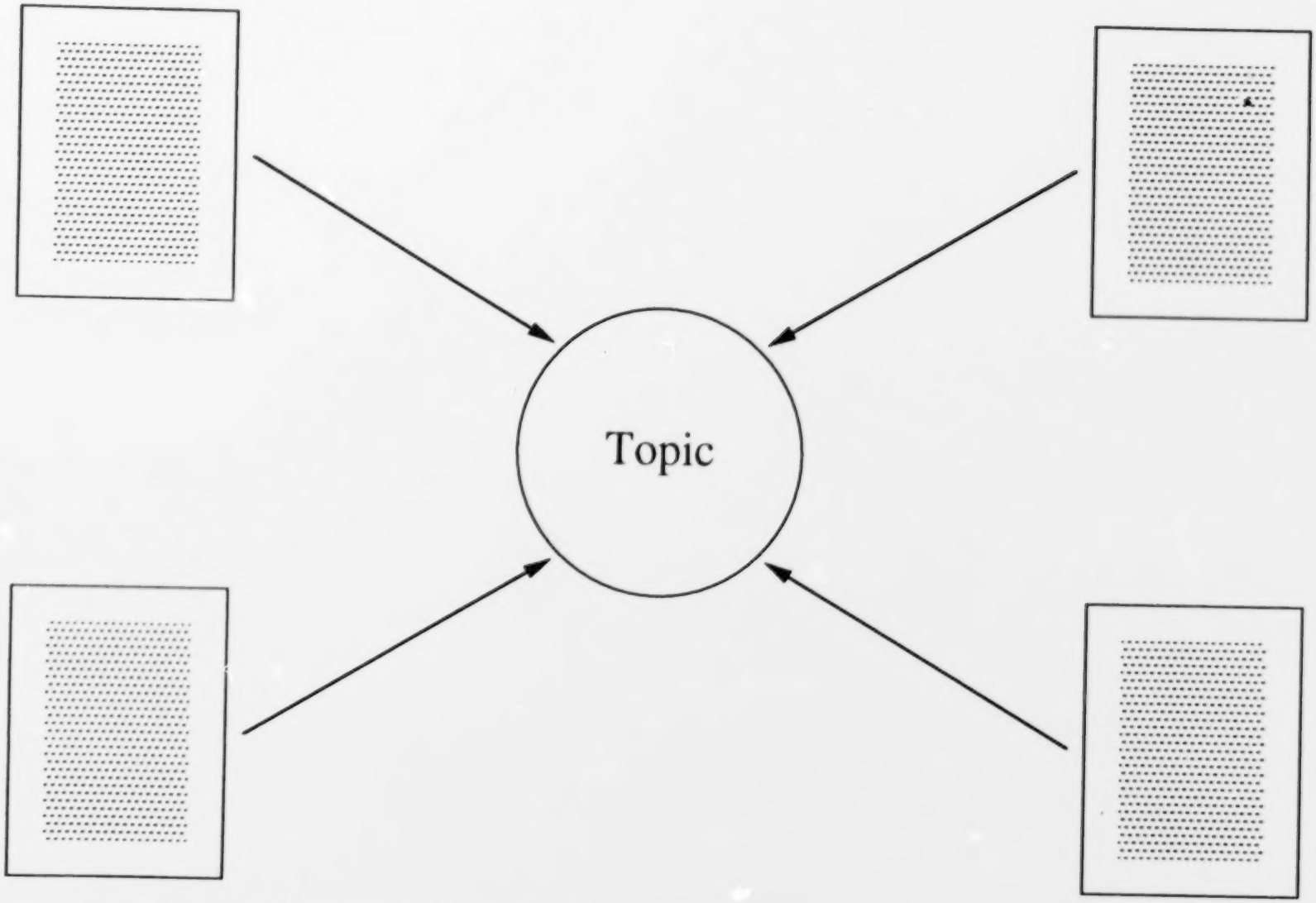

Figure 1. Graphic representation of relations in a *complementary* set of texts.

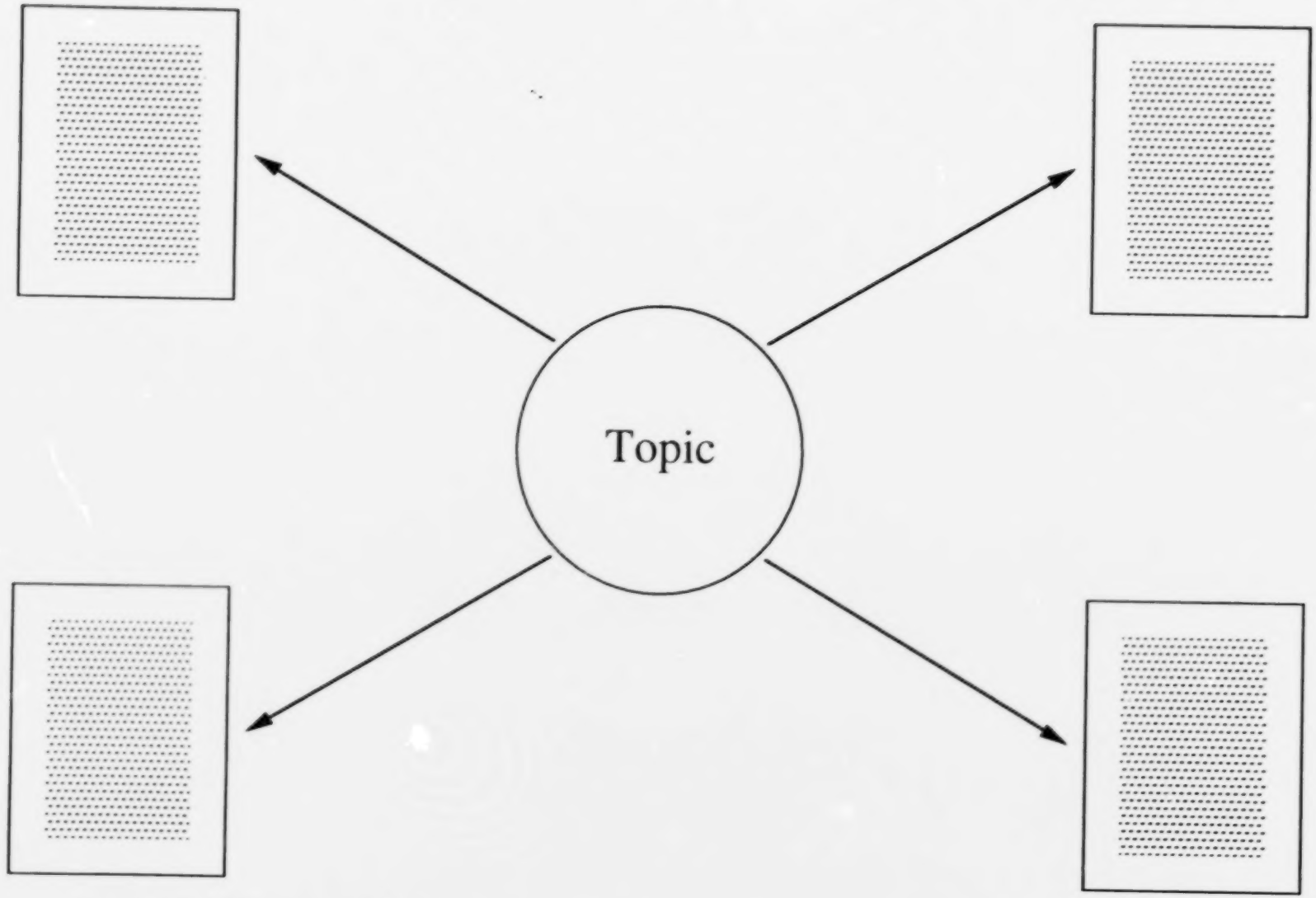

Figure 2. Graphic representation of relations in a *conflicting* set of texts.

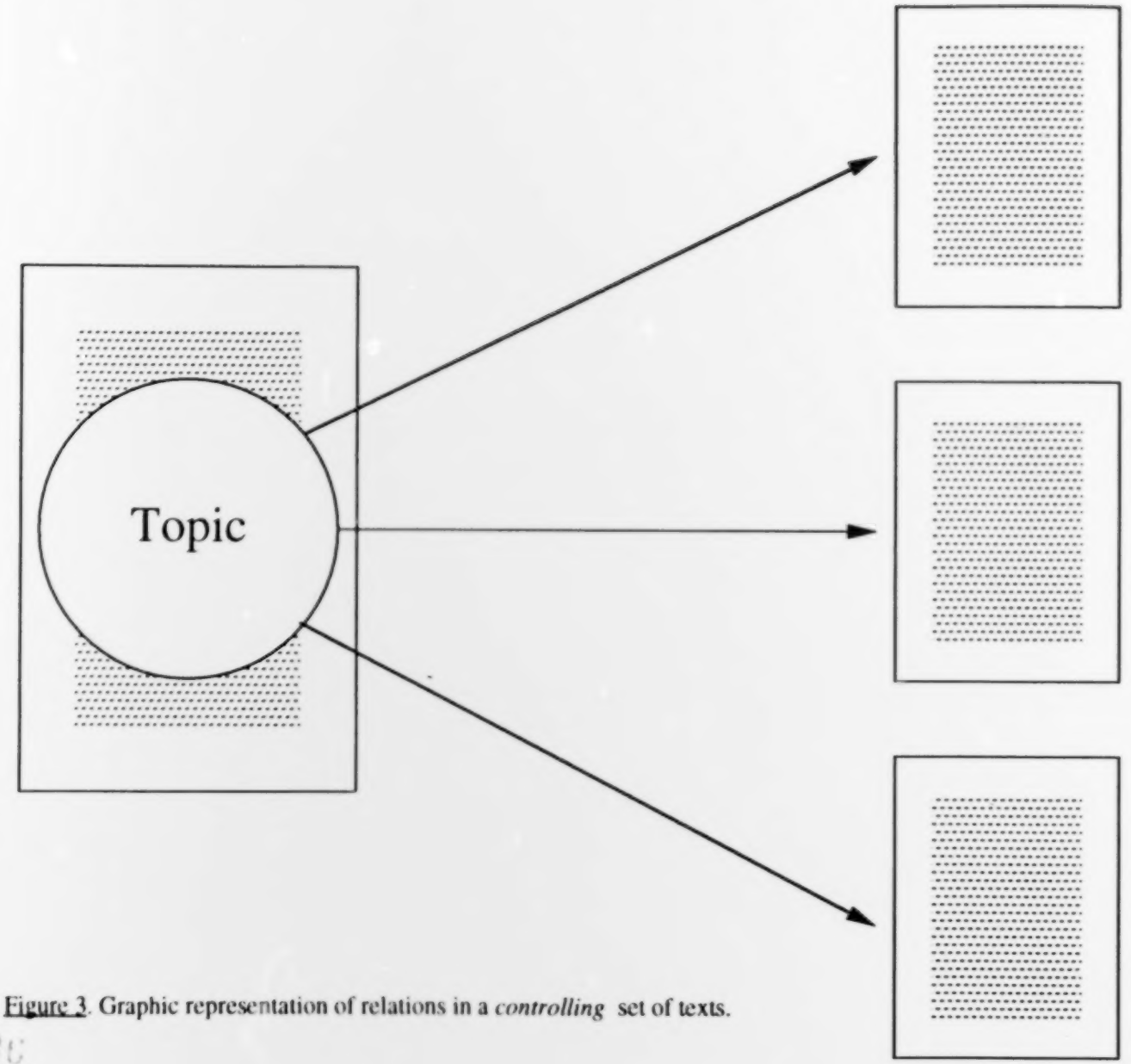

Figure 3. Graphic representation of relations in a *controlling* set of texts.

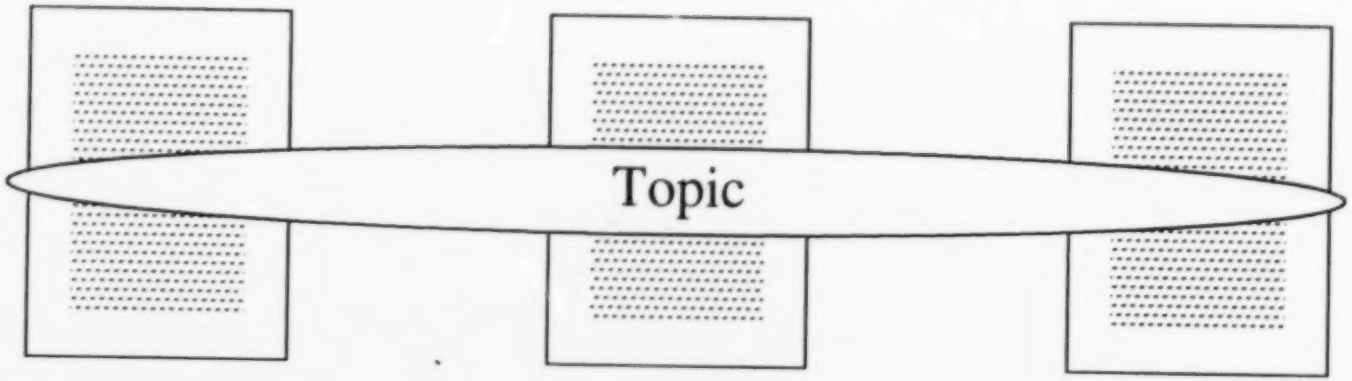

Figure 4. Graphic representation of relations in a *synoptic* set of texts.

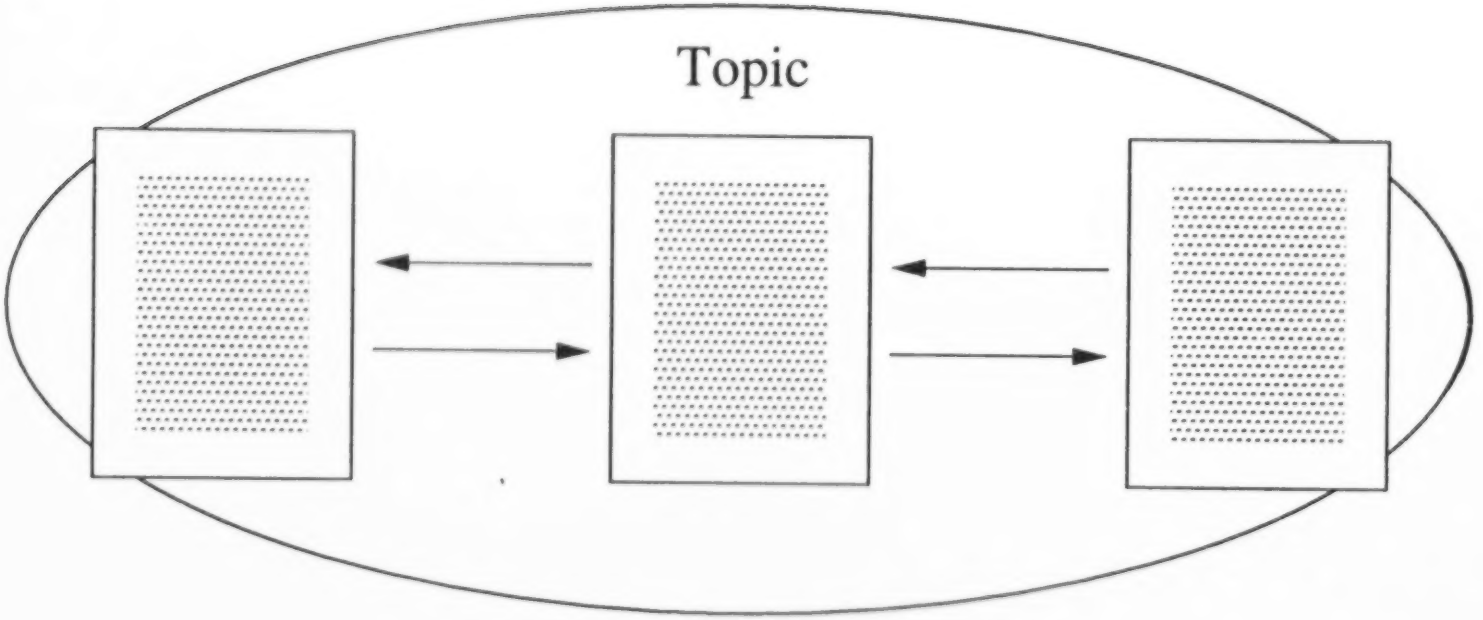

Figure 5. Graphic representation of relations in a *dialogic* set of texts.